cine will certainly not ascribe them to the depression from nausea: but we may add that the perspiration was too profuse to be due to mere depression and nausea. Moreover the perspiration occurred often some hours before the nausea or depression set in. Again, in children, though the drug in some cases caused much and repeated vomiting, there was no perspiration; moreover, in many cases, especially among adults, the full physiological effects of the drug were obtained without either nausea or depression.

"We have tried in several cases a tincture from the leaves, and in one case an extract made from the tincture, and found these preparations equally effectual as an infusion with the dregs. We find also that a strained infusion is equally efficacious as one with the dregs, from which we conclude that the active principle is not the oil, so abundant in these leaves. In one case we administered a strained infusion of the root without any effect, and in three cases an infusion made from the bark of the stem, giving also the dregs. The last preparation is also active, though it appeared to us to excite more vomiting, and to cause more depression than the preparation from the leaves."

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8. *Physiological Effects of Jaborandi.*—At the meeting of the Biological Society of Paris on November 28, M. CARVILLE communicated the results of some experiments on the action of jaborandi, made by him in M. Vulpian's laboratory.

These experiments were made from a purely physiological point of view, with the intention of studying the mechanism of salivary hypersecretion in the submaxillary gland in dogs. The facts noted up to the present time show that an injection of twenty cubic centimetres (a little more than five drachms) of water, in which two grammes (thirty grains) of jaborandi leaves had been infused, into the crural vein of a dog which had had curara administered to it, and then been submitted to artificial respiration, brought on an excessively copious secretion of saliva, in less than a quarter of an hour. By means of a canula inserted into Wharton's duct, the saliva may be collected both before and after the injection, during a quarter of an hour; and it was found that this secretion increased to four cubic centimetres under the influence of jaborandi; the saliva likewise becoming thick, thready, and opalescent. A subcutaneous injection of five centigrammes of atropia immediately stops this secretion. Division of the lingual nerve, and of its branches going to the submaxillary gland, has no effect whatever on the action of jaborandi on this gland.

Jaborandi has an analogous action on the urinary excretion; a canula placed in one of the ureters shows that this excretion was increased in the proportion of from one to two cubic centimetres.

Experiment has also demonstrated that intravenous injection of water in the same proportion has no influence whatever on the salivary secretion. From four to five hundred grammes are required to obtain a very temporary and trifling increase of salivation. In fine, the experiments hitherto made show that the action of jaborandi on the submaxillary gland of the dog does not affect the vaso-motor systems.

M. Carville proposes in further researches to resolve the question, whether this action takes effect on the peripheric extremity of the nerves of the gland, or on the secretory elements of that organ. M. Bernard drew attention to the fact that the conclusion to be drawn from M. Carville's experiments would be, that jaborandi does not act on the secretory nerve of the submaxillary gland. It may, however, act on the sympathetic nerves, inasmuch as the salivation observed after section of the cord of the tympanum was, in M. Carville's experiments, exactly like that produced by cervical sympathy. M. Bernard has shown that the saliva in these cases is viscid and rather copious, and M. Carville has found these characteristics present in his experiments.

M. Rabuteau remarked that he inclines to believe that jaborandi does not act on the nervous system, but on the striped muscular fibres. In the case noted, it must have been the muscles of the arterioles which were paralyzed, since there are no striped fibres in any other part of the parotid gland.—*Lond. Med. Record,* Dec. 23, 1874.

9. *Effects of Jaborandi on the Eye.*—Mr. JOHN TWEEDY has carefully investigated the effects of jaborandi on the eye, and for that purpose applied some of the extract on the conjunctiva. From these experiments he concludes "that jaborandi locally applied to the eye causes, (1), contraction of the pupil; (2), tension of the accommodative apparatus of the eye, with approximation of the nearest and furthest points of distinct vision; (3), amblyopic impairment of vision from diminished sensibility of the retina. These effects, however, do not last long. In his own case the approximation of the near and far points of distinct vision had declared itself in a quarter of an hour, and reached its maximum in about forty minutes. It then gradually subsided, and had entirely passed off and the eye resumed its normal state in about an hour and a half."—*Lancet*, Jan. 30, 1875.

10. *Boldo.*—This is one of the latest novelties offered to our materia medica. According to the *Chemist and Druggist*, the leaves are used on account of the aromatic oil they contain. The alkaloid discovered has been called boldine by Claude Verne and M. Bourgoin, the joint discoverers. The tree is indigenous to the New World; the leaves are covered on their surface with small glands. In South America, the plant is a popular remedy against syphilis and diseases of the liver. The essential oil is contained in cells, which are met with in nearly every part. The oil-vessels are perfectly spherical and of large diameter. The volatile oil is the most abundant product, as much as two per cent. having been frequently obtained, and is a mixture of various bodies. The preparations used are (1) alcoholic extract; (2) aqueous extract; (3) essential oil; (4) tincture; (5) wine with the Madeira; (6) syrup; (7) elixir. The leaves and flower-stems are alone employed. The dose of the wine is one tablespoonful to a wineglassful once or twice a day. Vomiting is induced by two large doses.

11. *Therapeutic Action of Ipecacuanha and its Alkaloid.*—Dr. POLICHRONIE (*Thèse de Paris*, 1874) has made a series of very interesting researches for the purpose of discovering the mode of action of ipecacuanha and of emetia. The clinical facts ascertained confirmed M. Chouppe's result. M. Polichronie's conclusions are as follows: Emetia is the really active principle of ipecacuanha. All the physiological, therapeutic, and toxic properties of this plant are due to the presence of this alkaloid. Ipecacuanha administered in injections, in dysentery as well as in diarrhœa, possesses just as powerful properties as when it is administered by the mouth according to the Brazilian method. Injections of ipecacuanha form one of the best imaginable treatments for infantile cholera, and may be borne for a considerable time without weakening the little patients. In the diarrhœa of tuberculosis, injections of ipecacuanha give good results at all stages. This medication may also be advantageously employed to combat the profuse perspiration of phthisis. Emetia is a very toxic substance; it kills animals in two ways, sometimes by the prostration of the nervous system which it causes, sometimes, when given in small doses, by the intense enteritis which it brings on. Two hypotheses may explain the favourable action of ipecacuanha in diarrhœa: either a constrictor action on the vessels which would diminish the abundance of the secretions, or a substitutive action resulting from the inflammation of the mucous membrane. There is, however, no vaso-constrictor action, as demonstrated by the experiments made on the nerve of the submaxillary gland, and on the arterial tension. The production of inflammation of the gastro-intestinal mucous membrane, and the length of time after which vomiting appears, seem, on the contrary, to plead in favour of the second hypothesis. Emetia brings on vomiting at the moment it eliminates itself by the gastric mucous membrane, as proved by the delay of the sickness and even more frequently its entire absence, after the section of the two vagus nerves; in this respect it acts quite differently from apomorphia and tartar emetic. These two substances, in fact, cause vomiting as quickly when the two nerves are cut as when they are intact. Finally, physiological and chemical researches into the action of this drug still more plead in favour of the elimination of the emetia by the gastro-intestinal mucous membrane. Emetia has no direct vomitive action on the central nervous system, which is proved by direct injections of